

ABSTRACT

An EPON for providing a subscriber with a high speed/high capacity data service and a real time digital broadcasting/image service includes an OLT for switching digital broadcasting/image data according to broadcasting/image selection information from each
5 ONT, modulating the switched data into frequencies assigned to each ONT, coupling a broadcasting/image signal with a communication signal, and transmitting the coupled signal. The digital broadcasting/image data is transmitted from an outside broadcaster, the broadcasting/image signal is a combination of the modulated signals, and the communication signal is obtained by optically modulating communication data from an IP
10 network. Further included in the EPON are multiple ONTs, and a divider for dividing the signal from the OLT for routing to each of the multiple ONTs, combining signals from the multiple ONTs, and transmitting the combined signal to the OLT.